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ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
12815C LANCE MISSILE NUMBER 2473, ROUND NUMBER 289 RST (7 OCTOB--ETC(U)
OCT 76

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October 1976
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METEOROLOGICAL DATA REPORT

12815C LANCE
MISSILE NO. 2473, ROUND NO. 289 RST
(7 October 1976)

BY

WSMR METEOROLOGICAL TEAM

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 12815C Lance, Missile Number 2473, Round Number 289 RST, are presented in tabular form. <i>A</i>		

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INTRODUCTION

12815C Lance, Missile Number 2473, Round Number 289 RST, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0816 HRS MDT, 7 October 1976. The scheduled launch time was 0815 HRS MDT.

DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	3,990.0	FEET/MSL
PRESSURE	885.4	MBS
TEMPERATURE	9.8	°C
RELATIVE HUMIDITY	49	%
DEW POINT	-0.4	°C
DENSITY	1,086.6	GM/M ³
WIND SPEED	012	MPH
WIND DIRECTION	200	DEGREES
CLOUD COVER	2 4	Sc C1

TABLE I. SURFACE OBSERVATIONS TAKEN AT WSD,
0817 HRS MDT/7 OCTOBER 1976.

ELEVATION	3,986.67	FEET/MSL
PRESSURE	885.3	MBS
TEMPERATURE	11.0	°C
RELATIVE HUMIDITY	44	%
DEW POINT	-0.7	°C
DENSITY	1,080.0	GM/M ³
WIND SPEED	030	MPH
WIND DIRECTION	018	DEGREES
CLOUD COVER	.4 .2	Sc Ci

TABLE II. SURFACE OBSERVATIONS TAKEN AT LC-33,
0820 HRS MDT/7 OCTOBER 1976.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	030	18.0
100	025	18.0
200	025	18.0
300	020	17.0
400	015	17.0
500	020	15.0
600	010	17.0
700	005	18.0
800	360	18.0
900	005	17.0
1000	360	18.0
1100	345	19.0
1200	345	19.0
1300	350	15.0
1400	350	15.0
1500	340	14.0
1600	345	19.0
1700	340	17.0
1800	325	13.0
1900	320	13.0
2000	335	13.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	345	12.0
2200	335	16.0
2300	325	17.0
2400	325	18.0
2500	335	17.0
2600	335	15.0
2700	340	18.0
2800	345	17.0
2900	350	19.0
3000	350	22.0
3100	355	19.0
3200	055	20.0
3300	010	21.0
3400	015	
3500	015	
3600	015	
3700	020	
3800	360	16.0
3900	355	16.0
4000	355	15.0
4100	350	14.0

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-33, AT 0810 MDT/7 OCTOBER 1976
12815C LANCE, MISSILE NO. 2473, ROUND NO. 289 RST

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,296.83 Y = 185,251.85 Z = 3,986.67

APPROXIMATELY: 815 FEET SOUTH SOUTHEAST OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	350	13.0
4300	355	12.0
4400	350	12.0
4500	350	13.0
4600	335	10.0
4700	330	12.0
4800	345	10.0
4900	340	8.0
5000	335	9.0
5100	330	12.0
5200	345	7.0
5300	350	7.0
5400	010	12.0
5500	355	12.0
5600	340	12.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
5700	345	11.0
5800	360	10.0
5900	355	12.0
6000	360	14.0
6100	350	16.0
6200	350	16.0
6300	355	18.0
6400	355	18.0
6500	350	16.0
6600	335	18.0
6700	335	18.0
6800	340	16.0
6900	345	18.0
7000	340	22.0
7100	340	22.0

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	340	10.0
100	339	11.0
200	339	10.0
300	339	10.0
400	339	10.0
500	338	9.0
600	334	9.0
700	334	9.0
800	331	8.0
900	330	8.0
1000	328	7.0
1100	329	7.0
1200	331	7.0
1300	325	8.0
1400	332	7.0
1500	315	5.0
1600	323	4.0
1700	322	5.0
1800	328	8.0
1900	329	10.0
2000	339	9.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	329	10.0
2200	320	11.0
2300	328	10.0
2400	340	12.0
2500	347	12.0
2600	344	11.0
2700	332	12.0
2800	332	12.0
2900	344	11.0
3000	346	11.0
3100	339	10.0
3200	324	8.0
3300	330	10.0
3400	334	12.0
3500	338	13.0
3600	354	12.0
3700	360	10.0
3800	020	8.0
3900	032	5.0
4000	042	7.0
4100	049	8.0

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2
RELEASED FROM LC-33, AT 0820 MDT/7 OCTOBER 1976
12815C LANCE, MISSILE NO. 2473, ROUND NO. 289 RST

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,296.83 Y = 185,251.85 Z = 3,986.67

APPROXIMATELY: 815 FEET SOUTH SOUTHEAST OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	042	10.0
4300	031	9.0
4400	032	10.0
4500	025	11.0
4600	024	9.0
4700	027	8.0
4800	018	9.0
4900	028	8.0
5000	021	8.0
5100	013	8.0
5200	014	8.0
5300	009	8.0
5400	012	9.0
5500	008	
5600	016	
5700	011	
5800	025	
5900	008	
6000	005	11.0
6100	360	10.0
6200	347	11.0
6300	346	12.0
6400	345	14.0
6500	347	13.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6600	352	15.0
6700	354	16.0
6800	356	17.0
6900	351	17.0
7000	346	18.0
7100	343	19.0
7200	342	18.0
7300	338	18.0
7400	332	20.0
7500	334	20.0
7600	334	23.0
7700	332	24.0
7800	334	26.0
7900	334	27.0
8000	338	28.0
8100	338	28.0
8200	338	28.0
8300	334	28.0
8400	331	29.0
8500	332	30.0
8600	331	31.0
8700	330	31.0
8800	324	31.0
8900	324	28.0

TABLE IV. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
9000	323	29.0
9100	325	32.0
9200	323	29.0
9300	324	31.0
9400	324	32.0
9500	323	31.0
9600	324	32.0
9700	324	33.0
9800	324	33.0
9900	321	35.0
10000	321	37.0
10100	324	38.0
10200	323	41.0
10300	321	44.0
10400	324	44.0
10500	322	45.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
10600	318	46.0
10700	315	47.0
10800	313	49.0
10900	309	50.0
11000	315	52.0
11100	310	51.0
11200	312	52.0
11300	311	52.0
11400	312	52.0
11500	312	54.0
11600	310	55.0
11700	313	58.0
11800	307	55.0
11900	305	57.0
12000	304	57.0

TABLE IV. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

STATION ALTITUDE 3939.00 FEET MSL
 7 OCT. 76
 0805 HRS MDT
 ASCENSION IS. 67.

SIGNIFICANT LEVEL DATA
 2610220678
 WHITE SANDS

STATION ALTITUDE 3939.00 FEET MSL
 7 OCT. 76
 0805 HRS MDT
 ASCENSION IS. 67.

STATION ALTITUDE 3939.00 FEET MSL
 7 OCT. 76
 0805 HRS MDT
 ASCENSION IS. 67.

TABLE V

PRESSURE GEOMETRIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE LEADPOINT	REL. HUM. PERCENT
BALLPARKS MSL FEET	DEGREES	CENTIGRADE	
885.3	9.8	-11.6	45.0
890.0	3.1	-1.9	53.0
729.8	0.2	-0.6	94.0
710.8	-0.9	-1.6	95.0
700.0	-1.3	-4.0	82.0
680.0	-1.4	-7.5	54.0
671.2	-1.1	-10.4	49.0
667.0	-4.5	-26.8	16.0
598.6	-2.6	-25.6	15.0
530.6	-10.4	-30.1	18.0
500.0	-11.6	-32.3	16.0
458.0	-16.1	-38.0	16.0
431.0	-17.5	-37.2	16.0
400.0	-21.4	-40.4	16.0
325.0	-32.4	-49.6	16.0
300.0	-37.0		
250.0	-46.6		
200.0	-58.6		
191.8	-58.8		
163.6	-57.1		
178.6	-56.9		
150.0	-65.3		
138.0	-67.4		
128.2	-66.5		
107.4	-69.5		
100.0	-65.3		
96.6	-60.4		
77.0	-62.3		
70.0	-60.3		
50.0	-55.4		

STATION ALTITUDE 3949.00 FEET MSL
 7 OCT. 76
 ASCENDING NO. 073

0805 HRS MDT

SIGNIFICANT LEVEL DATA
 2910020078
 WHITE SANDS

ASTH SITE COORDINATES
 488580.00 FEET E
 165045.00 FEET N

TABLE V (CONT)

PRESSURE GEOMETRIC	TEMPERATURE	REL. HUM.
ALTITUDE	AIR TEMPOINT	PERCENT
HILLIAMS MSL FEET	DEGREES CENTIGRADE	
36.0 7492.3	-56.2	

STATION ALTITUDE 1909.00 FEET MSL
 7 OCT. / 5
 0805 HRS MDT
 ASCENSION 10. 675

UPPER AIR DATA
 2810020678
 WHITE SPILLS

TABLE VI

GEOMETRIC ALTITUDE MSL FEET	PRESSURE	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. %	DENSITY GRAMS PER CUBIC CM	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION (DEGREES (TN))	SPEED KNOTS	
1999.0	085.3	9.8	-1.0	45.0	1087.4	656.1	30.0	8.0	1.000268
1999.0	101.0	9.8	-1.5	45.1	1087.1	656.1	29.6	8.0	1.000268
1999.0	116.1	9.0	-1.2	45.7	1070.0	655.2	14.6	10.4	1.000265
1999.0	131.3	5.2	-1.3	52.3	1053.3	654.3	5.5	13.2	1.000262
1999.0	147.2	7.3	-1.6	57.1	1037.2	653.3	359.8	10.2	1.000259
1999.0	162.7	5.0	-1.4	62.1	1021.4	652.2	356.2	19.1	1.000256
1999.0	178.5	5.4	-1.2	67.1	1005.9	651.1	359.7	10.5	1.000253
1999.0	194.6	4.4	-1.2	72.1	991.6	650.0	4.9	14.0	1.000250
1999.0	210.7	3.4	-1.2	77.2	975.6	648.9	8.3	11.7	1.000247
1999.0	226.5	2.5	-1.2	82.2	960.9	647.7	13.1	9.4	1.000244
1999.0	242.4	1.5	-1.4	87.2	946.4	646.6	14.8	9.0	1.000241
1999.0	258.5	.5	-1.6	92.3	932.1	645.5	15.5	9.0	1.000237
1999.0	273.8	-1.3	-1.1	94.5	917.6	644.4	5.3	9.7	1.000233
1999.0	289.2	-1.0	-2.4	90.7	902.9	643.5	353.6	11.0	1.000227
1999.0	303.9	-1.3	-5.4	73.5	887.3	643.0	343.0	13.5	1.000219
1999.0	318.8	-1.4	-9.2	55.1	871.2	642.8	335.3	16.8	1.000210
1999.0	337.9	-1.3	-11.0	47.4	854.5	642.8	330.3	19.2	1.000204
1999.0	355.2	-2.0	-13.5	41.1	840.7	641.9	326.5	21.2	1.000198
1999.0	372.7	-2.7	-16.1	34.8	827.1	641.0	323.4	24.1	1.000193
1999.0	390.5	-3.5	-19.1	28.4	813.7	640.0	321.1	27.2	1.000188
1999.0	408.5	-4.2	-22.6	22.1	800.6	639.1	315.4	31.8	1.000184
1999.0	426.7	-4.8	-26.7	16.0	787.3	638.3	310.0	37.4	1.000179
1999.0	445.1	-3.0	-25.8	15.1	767.0	640.5	303.5	41.5	1.000175
1999.0	463.6	-4.2	-26.5	15.6	755.7	639.0	297.1	45.6	1.000172
1999.0	482.3	-5.5	-27.2	16.1	744.6	637.5	295.1	47.6	1.000169
1999.0	501.3	-6.8	-27.9	16.6	733.7	636.0	294.3	48.8	1.000167
1999.0	520.5	-8.0	-26.0	17.1	723.0	634.5	296.4	49.6	1.000164
1999.0	539.9	-9.3	-29.4	17.6	712.5	633.0	299.2	50.4	1.000162
1999.0	559.4	-10.4	-30.2	17.8	701.8	631.5	303.6	49.8	1.000159
1999.0	579.1	-11.6	-31.9	17.5	691.1	631.1	309.5	48.9	1.000156

STATION ALTITUDE 5909.00 FEET MSL

7 OCT. 76

0805 HRS MDT

ASCENSION NO. 676

UPPER AIR DATA

2810004676

WHITE SANDS

WSTM SITE COORDINATES

488580.00 FEET E

185045.00 FEET N

TABLE VI (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GR./CM ³ DFTER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION (DEGREES(TN))	SPEED KNOTS	
18500.0	508.9	-11.2	16.6	674.7	630.6	315.8	48.8	1.0000153
19000.0	498.9	-11.6	16.6	664.7	630.0	322.7	49.5	1.0000150
19500.0	489.0	-13.1	16.0	654.9	628.3	328.8	51.0	1.0000148
20000.0	479.3	-14.5	16.0	645.3	626.7	333.6	55.4	1.0000146
20500.0	469.8	-15.6	16.0	635.9	625.0	336.9	60.2	1.0000143
21000.0	460.4	-16.4	16.0	624.5	624.3	337.6	66.5	1.0000141
21500.0	451.2	-16.7	16.0	612.8	623.9	335.7	72.3	1.0000138
22000.0	442.1	-17.1	16.0	601.3	623.5	332.1	77.8	1.0000135
22500.0	433.3	-17.4	16.0	590.1	623.1	328.4	78.1	1.0000133
23000.0	424.5	-18.3	16.0	580.2	622.0	325.1	77.2	1.0000131
23500.0	415.9	-19.4	16.0	570.8	620.7	324.4	73.5	1.0000128
24000.0	407.5	-20.4	16.0	561.6	619.4	324.2	71.7	1.0000126
24500.0	399.2	-21.5	16.0	552.6	618.1	324.6	71.8	1.0000124
25000.0	390.9	-22.6	16.0	543.5	616.7	324.5	73.4	1.0000122
25500.0	382.8	-23.7	16.0	534.5	615.3	324.1	75.6	1.0000120
26000.0	374.8	-24.6	16.0	525.8	613.9	323.7	77.2	1.0000118
26500.0	367.0	-26.0	16.0	517.1	612.5	323.2	78.6	1.0000116
27000.0	359.3	-27.1	16.0	508.6	611.1	322.8	79.7	1.0000114
27500.0	351.8	-28.2	16.0	500.3	609.8	322.5	80.7	1.0000112
28000.0	344.5	-29.3	16.0	492.1	608.4	322.2	81.9	1.0000110
28500.0	337.3	-30.4	16.0	484.1	607.0	322.1	83.2	1.0000108
29000.0	330.3	-31.5	16.0	476.2	605.6	322.1	84.4	1.0000107
29500.0	323.3	-32.7	15.0**	468.4	604.1	322.2	85.4	1.0000105
30000.0	316.4	-33.9	10.0**	460.7	602.5	322.2	85.9	1.0000103
30500.0	309.6	-35.2	7.0**	453.2	601.0	322.0	85.6	1.0000101
31000.0	302.9	-36.4	1.9**	445.8	599.4	321.7	84.8	1.0000099
31500.0	296.3	-37.8		438.5	597.7	320.9	83.0	1.0000098
32000.0	289.7	-39.2		431.0	595.9	320.0	81.7	1.0000096
32500.0	283.2	-40.7		424.4	594.0	319.1	81.6	1.0000095
33000.0	276.9	-42.1		417.5	592.2	318.4	82.4	1.0000093

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3509.00 FEET MSI
 7 OCT. 76
 ASCENSION NO. 678
 0805 HRS MDT
 UPPER AIR DATA
 281002-678
 TIME 5:00 PM
 *STM SITE COORDINATES
 488500.00 FEET E
 185045.00 FEET N

TABLE VI (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY G/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION (DEGREES(TN))	SPEED KNOTS	
33500.0	270.8	-43.5		410.8	590.3	318.1	84.9	1.000091
34000.0	264.7	-45.0		404.1	586.5	318.0	87.0	1.000090
34500.0	258.6	-46.4		397.6	586.7	318.0	88.4	1.000089
35000.0	253.1	-47.8		391.3	584.8	318.8	89.3	1.000087
35500.0	247.0	-49.1		384.5	583.2	319.9	88.8	1.000086
36000.0	241.5	-50.1		377.3	581.6	321.3	87.6	1.000084
36500.0	235.9	-51.2		370.3	580.4	323.6	85.1	1.000082
37000.0	230.4	-52.3		363.4	579.0	325.8	83.4	1.000081
37500.0	225.0	-53.3		356.6	577.6	327.7	82.9	1.000079
38000.0	219.8	-54.4		350.0	576.2	329.1	83.5	1.000078
38500.0	214.7	-55.4		343.5	574.8	329.1	86.8	1.000077
39000.0	209.6	-56.5		337.1	573.4	329.0	89.9	1.000075
39500.0	204.8	-57.5		330.8	572.0	328.4	89.7	1.000074
40000.0	200.0	-58.6		224.7	570.6	327.9	89.5	1.000072
40500.0	195.2	-58.7		317.1	570.5	328.2	85.0	1.000071
41000.0	190.5	-58.5		309.3	570.7	328.6	79.8	1.000069
41500.0	186.0	-57.6		300.6	572.0	330.4	75.0	1.000067
42000.0	181.0	-57.0		292.7	572.7	332.9	70.3	1.000065
42500.0	177.3	-57.3		286.0	572.4	335.3	66.9	1.000064
43000.0	173.0	-58.4		280.7	570.9	337.8	64.5	1.000063
43500.0	168.8	-59.6		275.4	569.3	339.5	62.8	1.000061
44000.0	164.7	-60.8		270.2	567.7	338.9	62.5	1.000060
44500.0	160.8	-62.0		265.2	566.1	338.3	62.2	1.000059
45000.0	156.9	-63.1		260.2	564.6	338.2	55.2	1.000058
45500.0	153.1	-64.3		255.4	563.0	333.6	55.9	1.000057
46000.0	149.4	-65.4		250.5	561.5	330.7	52.7	1.000056
46500.0	145.7	-66.0		245.1	560.7	326.9	48.9	1.000055
47000.0	142.1	-66.7		239.7	559.8	322.6	45.4	1.000053
47500.0	138.6	-67.3		234.5	559.0	319.4	44.1	1.000052
48000.0	135.1	-67.1		228.5	559.2	317.2	45.0	1.000051

STATION ALTITUDE 3289-00 FEET MSL
 7 OCT. 76
 ASCENSION NO. 676
 0805 HRS MDT
 UPPER AIR DATA
 201120076
 WIND SITE COORDINATES
 488500.00 FEET E
 185145.00 FEET N

TABLE VI (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
48500.0	151.0	-66.8		222.5	559.6	315.3	45.9	1.000050
49000.0	129.5	-66.5		216.7	560.0	315.0	47.1	1.000048
49500.0	125.3	-66.4		211.7	559.5	314.8	48.2	1.000047
50000.0	122.2	-67.4		206.9	558.8	314.8	49.0	1.000046
50500.0	119.2	-67.9		202.2	558.2	315.2	48.7	1.000045
51000.0	116.2	-68.4		197.6	557.5	315.6	48.4	1.000044
51500.0	113.3	-68.6		193.2	556.9	316.8	47.8	1.000043
52000.0	110.5	-69.3		188.8	556.2	318.8	47.0	1.000042
52500.0	107.7	-69.6		183.6	556.9	320.8	46.3	1.000041
53000.0	105.0	-67.6		178.0	558.5	323.1	44.5	1.000040
53500.0	102.4	-66.4		172.6	560.1	325.6	42.5	1.000038
54000.0	99.9	-65.1		167.3	561.9	328.4	40.6	1.000037
54500.0	97.5	-61.7		160.5	560.6	329.4	36.1	1.000036
55000.0	95.1	-60.5		155.8	568.1	330.4	31.4	1.000035
55500.0	92.8	-60.7		152.2	567.8	331.7	26.6	1.000034
56000.0	90.6	-60.9		148.7	567.5	328.9	22.2	1.000033
56500.0	88.4	-61.1		145.2	567.2	324.9	17.8	1.000032
57000.0	86.3	-61.3		141.5	567.0	318.6	14.1	1.000032
57500.0	84.2	-61.6		138.6	566.7	312.6	13.6	1.000031
58000.0	82.1	-61.6		135.4	566.4	306.2	13.1	1.000030
58500.0	80.2	-62.0		132.2	566.1	301.2	13.1	1.000029
59000.0	78.2	-62.2		129.2	565.9	302.5	13.6	1.000029
59500.0	76.3	-61.4		125.9	566.2	303.8	14.2	1.000028
60000.0	74.5	-60.9		122.3	567.5	305.1	14.5	1.000027
60500.0	72.7	-59.9		118.6	568.9	307.4	13.6	1.000026
61000.0	71.0	-58.9		115.4	570.3	309.9	12.7	1.000026
61500.0	69.3	-58.2		112.3	571.2	312.6	11.7	1.000025
62000.0	67.6	-58.0		109.5	571.4	314.1	10.3	1.000024
62500.0	66.0	-57.8		106.8	571.7	316.1	8.9	1.000024
63000.0	64.5	-57.6		104.2	572.0	318.1	7.8	1.000023

STATION ALTITUDE 3909.00 FEET MSL
 7 OCT. 76 0805 HRS MDT
 ASCENSION NO. 576

CLEAR AIR DATA
 2410220676
 WHITE SANDS

WSTM SITE COORDINATES
 488560.00 FEET E
 185445.00 FEET N

TABLE VI (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY GRAMS/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TM)	SPEED KNOTS	
65500.0	63.0	-57.4		141.7	572.2	317.5	7.9	1.000023
66000.0	61.5	-57.2		94.2	572.5	316.9	8.0	1.000022
66500.0	60.0	-57.0		96.7	572.6	315.2	8.2	1.000022
67000.0	58.6	-56.8		94.3	573.1	311.4	8.6	1.000021
67500.0	57.2	-56.6		92.0	573.3	308.0	8.9	1.000020
68000.0	55.9	-56.4		84.8	573.6	303.4	8.5	1.000020
68500.0	54.5	-56.2		87.6	573.9	295.5	7.4	1.000020
69000.0	53.3	-55.9		85.4	574.2	286.0	6.5	1.000019
69500.0	52.0	-55.7		83.3	574.4	278.9	5.8	1.000019
70000.0	50.8	-55.5		81.3	574.7	274.1	5.2	1.000018
70500.0	49.6	-55.4		79.3	574.8	268.1	4.7	1.000016
71000.0	48.4	-55.5		77.5	574.8	260.2	4.6	1.000017
71500.0	47.3	-55.6		75.7	574.7	257.4	5.2	1.000017
72000.0	46.2	-55.6		73.9	574.6	310.3	6.1	1.000016
72500.0	45.1	-55.7		72.2	574.5	320.3	7.3	1.000016
73000.0	44.0	-55.8		70.5	574.4	327.6	8.6	1.000016
73500.0	42.0	-55.9		68.9	574.3	332.9	10.0	1.000015
74000.0	41.0	-56.0		67.3	574.2			1.000015
74500.0	40.0	-56.0		65.6	574.1			1.000015
75000.0	39.1	-56.1		64.2	574.0			1.000014
75500.0	38.2	-56.2		62.7	573.9			1.000014
76000.0				61.3	573.8			1.000014

STATION ALTITUDE 3989.00 FEET ASL
7 OCT. 78
ASCENSION NO. 678

LABORATORY LEVELS
281020678
WHITE SANDS

0805 HRS MDT

678

45TH SITE COORDINATES
488581.00 FEET E
165545.00 FEET N

TABLE VII

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE AIR DEGREES CELSIUS	TEMPERATURE DEWPOINT DEGREES CELSIUS	REL. HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5094.	6.7	-0.9	53.	4.3	13.8
800.0	6728.	5.0	-0.2	69.	2.0	15.4
750.0	8497.	1.6	-0.4	87.	14.7	9.0
700.0	10263.	-1.3	-4.0	82.	347.9	12.2
650.0	12201.	-2.3	-14.5	38.	325.0	22.2
600.0	14276.	-3.0	-25.8	15.	306.6	40.0
550.0	16517.	-8.1	-28.7	17.	296.6	49.6
500.0	18925.	-11.6	-32.3	16.	321.9	49.4
450.0	21541.	-16.8	-36.6	16.	335.2	73.0
400.0	24423.	-21.4	-40.4	16.	324.5	71.6
350.0	27606.	-26.5	-46.3	16.	322.4	81.0
300.0	31171.	-37.0			321.3	84.0
250.0	35207.	-48.6			319.4	89.0
200.0	39915.	-58.6			327.9	69.5
175.0	42677.	-57.9			336.6	65.6
150.0	45611.	-65.3			331.3	53.3
125.0	49425.	-67.0			314.8	40.3
100.0	53831.	-65.3			328.2	40.7
60.0	58370.	-62.0			301.3	13.1
70.0	61075.	-58.3			311.5	12.2
60.0	64286.	-57.0			315.3	8.2
50.0	68089.	-55.4			270.5	4.9
40.0	72751.	-56.1				

.. AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4120.59 FEET MSL
 7 OCT. 76
 ASCENSION NO. 374

0815 HRS MDT

SIGNIFICANT LEVEL DATA
 2610010574
 HULLDOWN

TABLE VIII

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		RELATIVE PERCENT
		AIR DEGREES	WETBULB CENTIGRADE	
878.4	4120.6	10.1	6.5	59.0
850.0	5021.1	8.0	5.3	50.0
762.8	7922.6	1.8	-5.6	58.0
700.0	10183.5	-2.1	-8.6	71.0
680.0	10938.6	-3.9	-8.4	83.0
642.2	12420.2	-5.0	-10.0	68.0
603.4	14019.5	-8.8	-14.5	63.0
587.6	14695.2	-8.8	-27.1	21.0
582.9	14900.3	-7.2	-28.7	16.0
550.6	16348.5	-8.1	-28.2	18.0
500.0	18795.9	-13.0	-31.7	19.0
400.0	24282.4	-22.8	-39.0	21.0
357.2	26970.6	-30.5	-45.2	22.0
338.2	28245.8	-31.7	-46.6	21.0
313.4	30003.3	-35.8	-50.2	21.0
300.0	31000.7	-37.0		
294.4	31429.4	-37.4		
250.0	35061.0	-48.1		
214.0	38369.3	-57.0		
200.0	39775.4	-58.3		
197.6	40025.3	-58.7		
195.0	40301.5	-55.4		
190.8	40760.4	-54.1		
162.2	44129.9	-62.2		
150.0	45712.0	-64.7		
135.4	47755.2	-68.1		
113.4	51273.1	-67.3		
106.2	52204.0	-68.4		
100.0	53770.2	-66.3		
71.0	55693.9	-57.8		

STATION ALTITUDE 4126.59 FEET MSL
 7 OCT. 76 0815 HRS MDT
 ASCENSION NO. 374

SIGNIFICANT LEVEL DATA
 2810010574
 HULLMAN

"374" SLIC COORDINATES
 371739.24 FEET E
 362743.21 FEET N

TABLE VIII (CONT)

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIK DEGREES	WET POINT CENTIGRADE	
75.9	54426.2	-63.0		
72.8	60280.2	-59.0		
70.0	61089.5	-59.4		
64.0	62939.4	-59.4		
63.2	63200.6	-57.5		
50.0	66103.7	-56.0		
46.2	69753.7	-58.0		
38.8	73389.8	-57.0		
35.4	75331.4	-51.9		
30.0	76861.6	-51.3		
20.0	87647.3	-46.0		
13.2	96722.1	-47.1		
10.0	102879.6	-42.0		
7.8	106466.2	-40.9		

STATION ALTITUDE 4120.54 FEET MSL
 / UCL 70
 ASCENSION NO. 374
 0815 HRS MDT
 UPPER AIR DATA
 28100105/4
 HULLCUM.
 "DTM SITE COORDINATES
 2/1/39.24 FEET E
 302/45.21 FEET N

TABLE IX

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEGREE POINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
4120.0	878.4	10.1	2.5	59.0	1076.7	650.7	0.0	0.0	1.0000274
4500.0	866.4	9.2	1.5	58.6	1065.7	655.6			1.0000270
5000.0	850.7	8.0	.3	58.0	1050.9	654.2			1.0000264
5500.0	835.0	7.0	-.7	58.0	1035.6	652.9			1.0000259
6000.0	819.5	5.9	-1.7	58.0	1020.3	651.6			1.0000254
6500.0	804.4	4.8	-2.7	58.0	1005.0	650.3			1.0000249
7000.0	789.5	3.8	-3.7	58.0	991.0	649.0			1.0000244
7500.0	774.9	2.7	-4.7	58.0	976.6	647.7			1.0000239
8000.0	760.6	1.7	-5.6	58.4	962.2	646.5			1.0000235
8500.0	746.2	.8	-5.8	61.3	947.0	645.3			1.0000231
9000.0	732.2	-.1	-6.0	64.2	932.1	644.1	18.0	12.7	1.0000228
9500.0	718.4	-.9	-6.2	67.1	917.5	643.4	8.0	13.0	1.0000224
10000.0	704.9	-1.8	-6.5	69.9	903.1	642.4	353.1	11.9	1.0000220
10500.0	691.5	-2.9	-6.5	76.0	889.5	641.2	335.9	11.7	1.0000218
11000.0	678.4	-3.9	-6.5	82.4	876.0	639.9	328.7	13.8	1.0000215
11500.0	665.4	-4.3	-7.7	77.3	860.6	639.4	320.9	16.2	1.0000210
12000.0	652.7	-4.7	-8.9	72.3	845.4	638.9	318.9	18.9	1.0000205
12500.0	640.2	-5.2	-10.2	67.8	830.9	638.3	317.7	21.0	1.0000200
13000.0	627.9	-6.4	-11.0	66.2	818.6	636.8	316.8	22.6	1.0000196
13500.0	615.7	-7.6	-13.1	64.6	806.6	635.3	316.4	26.9	1.0000192
14000.0	603.9	-8.6	-14.5	63.1	794.6	633.9	316.1	31.8	1.0000188
14500.0	592.1	-9.8	-22.1	33.1	779.8	633.6	314.4	38.3	1.0000179
15000.0	580.6	-7.3	-28.0	16.1	760.5	632.4	312.9	44.3	1.0000172
15500.0	569.4	-7.6	-28.4	16.8	746.6	632.0	310.4	47.0	1.0000169
16000.0	558.4	-7.9	-28.3	17.5	733.0	634.6	308.0	49.0	1.0000166
16500.0	547.5	-8.4	-28.4	18.1	720.2	634.0	304.6	48.4	1.0000164
17000.0	536.8	-9.4	-29.1	18.3	708.7	632.8	301.8	47.8	1.0000161
17500.0	526.3	-10.4	-29.8	18.5	697.5	631.6	302.2	47.0	1.0000158
18000.0	516.0	-11.4	-30.5	18.7	686.5	630.4	303.5	46.4	1.0000156
18500.0	505.9	-12.4	-31.3	18.9	675.7	629.2	308.9	46.8	1.0000153

XX WIND DATA INVALID DUE TO MISSING KAH AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 120.59 FEET MSL
 7 OCT. 76 0815 HRS MDT
 ASCENSION NO. 574

UPPER AIR DATA
 281010574
 MULLOHAU.

WSTN SITE COORDINATES
 571739.24 FEET E
 362745.21 FEET N

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	TEMPERATURE DEGREE CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (T)	SPEED KNOTS	INDEX OF REFRACTION
17000.0	495.9	-13.4	-32.0	19.1	004.7	020.0	314.4	47.7	1.0000150
17500.0	485.9	-14.3	-32.6	19.3	053.0	026.9	321.2	49.3	1.0000148
20000.0	476.1	-15.2	-33.3	19.4	042.7	023.0	327.7	52.3	1.0000145
20500.0	466.5	-16.0	-33.9	19.6	031.9	024.0	333.7	58.1	1.0000143
21000.0	457.1	-16.9	-34.6	19.8	021.4	023.7	337.5	64.5	1.0000140
21500.0	447.9	-17.8	-35.3	20.0	011.0	022.0	338.5	71.7	1.0000138
22000.0	438.9	-18.7	-35.9	20.2	000.8	021.5	338.4	77.4	1.0000135
22500.0	430.1	-19.6	-36.6	20.4	590.8	020.4	338.7	80.3	1.0000133
23000.0	421.4	-20.5	-37.3	20.5	581.0	019.3	334.7	81.9	1.0000131
23500.0	412.9	-21.4	-37.9	20.7	571.3	018.2	332.0	81.3	1.0000129
24000.0	404.6	-22.3	-38.6	20.9	561.8	017.1	329.6	81.2	1.0000126
24500.0	396.4	-23.4	-39.5	21.1	552.8	015.7	327.9	81.0	1.0000124
25000.0	388.1	-24.9	-40.6	21.3	544.4	013.9	326.6	82.1	1.0000122
25500.0	380.0	-26.3	-41.6	21.5	536.2	012.1	326.3	82.3	1.0000120
26000.0	372.1	-27.7	-42.9	21.6	528.1	010.4	325.8	83.3	1.0000118
26500.0	364.3	-29.2	-44.1	21.8	520.1	008.6	325.1	85.3	1.0000117
27000.0	356.8	-30.5	-45.2	22.0	512.2	006.9	324.4	87.9	1.0000115
27500.0	349.2	-31.0	-45.8	21.6	502.3	006.3	323.8	91.2	1.0000113
28000.0	341.8	-31.5	-46.3	21.2	492.6	005.7	323.7	92.5	1.0000110
28500.0	334.5	-32.3	-47.1	21.0	483.8	004.6	323.8	93.0	1.0000108
29000.0	327.3	-33.5	-48.1	21.0	475.7	003.2	324.3	92.5	1.0000106
29500.0	320.3	-34.0	-49.1	21.0	467.8	001.7	324.9	92.1	1.0000105
30000.0	313.4	-35.8	-50.2	21.0	460.0	000.2	325.3	93.7	1.0000103
30500.0	306.7	-36.4	-56.4	10.500	451.2	577.1	325.7	95.4	1.0000101
31000.0	300.0	-37.0	-57.2	0.000	442.6	570.7	325.7	97.4	1.0000099
31500.0	293.5	-37.6			434.0	571.9	325.5	98.8	1.0000097
32000.0	286.9	-38.1			427.0	570.0	325.2	99.3	1.0000095
32500.0	280.5	-40.6			420.2	574.1	325.0	98.9	1.0000094
33000.0	274.3	-42.0			413.5	572.3	324.7	97.9	1.0000092
33500.0	268.2	-43.5			406.8	570.1	324.5	97.3	1.0000091

.. AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4120.57 FEET MSL
 / OCT. 76
 ASCENSION NO. 574
 0815 HRS MDT

UPPER AIR DATA
 26100105/4
 MULLUMAN

JOIN SITE COORDINATES
 3/1/39.24 FEET E
 362/45.21 FEET N

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T.M.)	SPEED KNOTS	INDEX OF REFRACTION
34000.0	262.2	-45.0		700.4	568.2	324.3	47.4	1.000009
34500.0	256.4	-46.4		394.0	566.6	324.2	47.7	1.000008
35000.0	250.7	-47.9		387.7	564.7	324.1	48.3	1.000008
35500.0	244.9	-49.3		381.1	562.9	324.3	48.9	1.000008
36000.0	239.2	-50.6		374.5	561.1	324.8	49.6	1.000008
36500.0	233.7	-52.0		368.0	574.4	325.8	100.0	1.000008
37000.0	228.2	-53.3		361.7	577.6	327.4	100.0	1.000008
37500.0	222.9	-54.7		355.4	575.9	329.0	100.8	1.000007
38000.0	217.7	-56.0		349.3	574.1	330.3	103.4	1.000007
38500.0	212.7	-57.1		343.0	572.6	331.3	105.4	1.000007
39000.0	207.6	-57.7		335.6	571.9	331.6	106.2	1.000007
39500.0	202.7	-58.2		328.5	571.2	332.2	102.1	1.000007
40000.0	197.8	-58.7		321.4	570.5	333.2	92.5	1.000007
40500.0	193.2	-59.8		308.2	575.6	334.4	82.7	1.000009
41000.0	188.6	-59.7		300.7	575.8	335.9	72.7	1.000007
41500.0	184.1	-55.9		295.2	574.2	337.3	64.7	1.000006
42000.0	179.7	-57.1		289.8	572.7	338.5	58.1	1.000006
42500.0	175.5	-58.3		284.5	571.1	339.4	52.6	1.000006
43000.0	171.3	-59.5		279.3	569.5	339.0	49.4	1.000006
43500.0	167.2	-60.7		274.1	567.9	338.7	46.3	1.000006
44000.0	163.2	-61.7		269.1	566.2	335.7	47.9	1.000006
44500.0	159.3	-62.8		263.8	565.0	332.4	51.1	1.000005
45000.0	155.4	-63.7		258.4	563.8	329.5	54.6	1.000005
45500.0	151.6	-64.5		253.1	562.7	326.6	58.5	1.000005
46000.0	147.9	-65.4		247.9	561.6	324.1	62.5	1.000005
46500.0	144.2	-66.1		242.6	560.5	322.6	65.5	1.000005
47000.0	140.6	-66.9		237.5	559.5	322.1	67.3	1.000005
47500.0	137.1	-67.7		232.5	558.4	321.6	69.1	1.000005
48000.0	133.7	-68.0		227.2	557.9	321.9	66.9	1.000005
48500.0	130.4	-67.7		221.4	556.1	322.5	68.1	1.000004

UPPER AIR DATA
2810010574
HULLMAN

STATION ALTITUDE 4120.54 FEET MSL
7 OCT. 76
0815 HRS MDT
ASCENSION NO. 574

WSM SITE COORDINATES
37139.24 FEET E
362745.21 FEET N

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	DIRECTION DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
49000.0	127.2	-67.8		215.7	558.2	323.1	67.2	1.000046
49500.0	124.0	-67.7		210.3	558.4	323.6	61.1	1.000047
50000.0	120.9	-67.6		204.9	558.6	324.3	54.7	1.000046
50500.0	117.9	-67.5		199.7	558.7	325.1	48.6	1.000044
51000.0	115.0	-67.4		194.6	558.9	326.2	42.3	1.000043
51500.0	112.1	-67.6		190.0	558.6	327.7	36.0	1.000042
52000.0	109.3	-68.2		185.6	557.8	328.4	31.9	1.000041
52500.0	106.6	-68.0		181.1	557.9	328.7	26.3	1.000040
53000.0	104.0	-67.4		176.0	558.0	329.1	24.7	1.000039
53500.0	101.4	-66.8		171.2	559.0	328.2	22.8	1.000038
54000.0	98.9	-65.4		165.8	561.5	327.1	20.7	1.000037
54500.0	96.5	-63.1		160.0	564.6	326.0	19.6	1.000036
55000.0	94.1	-60.8		154.3	567.7	325.0	19.7	1.000034
55500.0	91.9	-58.3		149.1	570.8	324.1	19.8	1.000033
56000.0	89.7	-58.0		145.2	571.4	323.1	19.7	1.000032
56500.0	87.5	-58.8		142.2	570.4	322.0	19.6	1.000032
57000.0	85.4	-57.5		139.2	569.3	321.0	19.4	1.000031
57500.0	83.4	-60.2		136.4	568.3	321.6	19.4	1.000030
58000.0	81.3	-60.9		133.3	567.3	322.1	19.4	1.000030
58500.0	79.4	-61.7		130.8	568.6	322.8	19.2	1.000029
59000.0	77.5	-62.4		128.1	565.6	323.8	18.6	1.000029
59500.0	75.6	-62.7		125.2	565.2	324.9	18.1	1.000028
60000.0	73.8	-60.7		121.0	567.8	325.3	16.2	1.000027
60500.0	72.0	-59.7		117.5	569.2	325.7	13.3	1.000026
61000.0	70.3	-57.9		114.8	568.7	326.0	10.7	1.000026
61500.0	68.6	-59.8		112.0	569.1	326.1	8.0	1.000025
62000.0	67.0	-59.7		109.3	569.2	326.0	5.3	1.000024
62500.0	65.4	-59.3		105.8	569.4	326.0	3.0	1.000024
63000.0	63.8	-57.0		103.8	570.2	325.7	1.8	1.000023
63500.0	62.3	-57.4		100.6	572.2	324.7	.6	1.000022

UPPER AIR DATA
28100105/4
HULLMAN

STATION ALTITUDE 4125.54 FEET MSL
7 OCT. 78 0815 HRS MDT
ASCENSION NO. 574

STATION COORDINATES
5/1/59.24 FEET E
362/45.21 FEET N

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ MEIER	SPEED OF SOUND KNUTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNUTS	INDEX OF REFRACTION
67000.0	90.8	-57.3		98.6	574.4	332.1	9	1.000022
67500.0	89.4	-57.1		95.8	572.6	333.5	2.2	1.000021
68000.0	88.0	-56.9		93.4	572.8	333.9	3.4	1.000021
68500.0	86.6	-56.8		91.2	573.0	333.9	5.3	1.000020
69000.0	85.3	-56.6		89.0	573.2	333.9	7.1	1.000020
69500.0	84.0	-56.5		86.8	573.4	333.5	8.8	1.000019
70000.0	82.7	-56.3		84.7	573.6	332.6	9.4	1.000019
70500.0	81.5	-56.2		82.6	573.8	331.8	10.2	1.000018
71000.0	80.2	-56.0		80.6	574.0	330.8	10.2	1.000018
71500.0	78.9	-56.7		78.9	573.2	329.7	10.0	1.000018
72000.0	77.6	-57.5		77.4	572.1	328.6	9.7	1.000017
72500.0	76.8	-58.4		75.9	570.9	327.9	7.7	1.000017
73000.0	75.7	-58.7		74.2	570.3	326.8	5.8	1.000017
73500.0	74.6	-58.4		72.3	570.9	324.4	3.8	1.000016
74000.0	73.5	-58.2		70.5	571.2	318.1	1.8	1.000016
74500.0	72.5	-57.9		68.8	571.5	211.5	.6	1.000015
75000.0	71.5	-57.7		67.1	571.6	171.3	1.8	1.000015
75500.0	70.5	-57.4		65.4	572.2	164.9	2.5	1.000015
76000.0	69.5	-57.2		63.8	572.5	161.8	3.4	1.000014
76500.0	68.6	-56.7		62.1	573.1	158.7	3.9	1.000014
77000.0	67.7	-55.4		60.3	574.9	156.2	4.3	1.000013
77500.0	66.8	-54.1		58.5	576.6	154.0	4.8	1.000013
78000.0	66.0	-52.8		56.8	578.3	151.8	5.3	1.000013
78500.0	65.1	-51.9		55.3	579.5	150.0	5.8	1.000012
79000.0	64.3	-51.8		54.0	579.6	147.3	6.3	1.000012
79500.0	63.5	-51.7		52.7	579.7	144.2	6.7	1.000012
80000.0	62.8	-51.6		51.5	579.8	141.5	7.2	1.000011
80500.0	62.0	-51.5		50.3	580.0	138.2	7.2	1.000011
81000.0	61.3	-51.4		49.1	580.1	134.6	7.1	1.000011
81500.0	60.5	-51.4		48.0	580.2	130.9	7.1	1.000011

UPPER AIR DATA
20100105/4
HULLMAN

STATION ALTITUDE 4120.59 FEET MSL
/ OCT. 76
ASCENSION NO. 5/4

0815 HRS MDT

W-S-M SITE CUMULATED
5/1/59.24 FEET E
362/45.21 FEET N

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	WIND SPEED KNOTS	WIND DIRECTION DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
77000.0	29.8	-51.3	40.8	500.3	120.6	5.7	1.000000	
77500.0	29.2	-51.1	45.7	500.5	125.0	4.4	1.000000	
80000.0	28.5	-51.0	44.7	500.7	116.9	3.1	1.000000	
80500.0	27.8	-50.8	43.6	500.9	110.0	1.9	1.000000	
81000.0	27.2	-50.6	42.6	501.1	75.7	.8	1.000000	
81500.0	26.6	-50.5	41.6	501.3	350.4	1.0	1.000000	
82000.0	26.0	-50.3	40.6	501.5	345.3	1.2	1.000000	
82500.0	25.4	-50.2	39.6	501.7	337.8	1.5	1.000000	
83000.0	24.8	-50.0	39.7	501.9	332.6	1.8	1.000000	
83500.0	24.2	-49.9	37.8	502.1	330.2	2.5	1.000000	
84000.0	23.7	-49.7	36.9	502.3	328.8	3.1	1.000000	
84500.0	23.1	-49.6	36.0	502.5	328.0	3.8	1.000000	
85000.0	22.6	-49.4	35.2	502.7	327.6	5.1	1.000000	
85500.0	22.1	-49.3	34.4	502.9	327.4	6.4	1.000000	
86000.0	21.6	-49.1	33.6	503.1	327.3	7.7	1.000000	
86500.0	21.1	-49.0	32.8	503.3	327.2	8.2	1.000000	
87000.0	20.6	-48.8	32.0	503.5	327.2	8.4	1.000000	
87500.0	20.1	-48.6	31.2	503.7	327.2	8.6	1.000000	
88000.0	19.7	-48.5	30.5	503.9	329.6	8.5	1.000000	
88500.0	19.2	-48.5	29.8	504.0	333.7	8.1	1.000000	
89000.0	18.8	-48.4	29.1	504.1	337.9	7.8	1.000000	
89500.0	18.4	-48.3	28.5	504.2	342.0	7.7	1.000000	
90000.0	18.0	-48.2	27.8	504.3	345.6	7.8	1.000000	
90500.0	17.6	-48.1	27.2	504.4	349.3	7.9	1.000000	
91000.0	17.2	-48.0	26.5	504.5	350.3	8.4	1.000000	
91500.0	16.8	-48.0	25.9	504.6	348.9	9.1	1.000000	
92000.0	16.4	-47.9	25.3	504.7	347.6	9.9	1.000000	
92500.0	16.0	-47.8	24.8	504.8	346.9	10.8	1.000000	
93000.0	15.7	-47.7	24.2	504.9	347.0	11.6	1.000000	
93500.0	15.3	-47.6	23.6	505.0	347.1	12.3	1.000000	

STATION ALTITUDE 4120.59 FEET MSL
 7 OCT. 70
 ASCENSION NO. 374

UPPER AIR DATA
 2810010574
 HULLMAN

ASTM SITE COORDINATES
 571139.24 FEET E
 302745.21 FEET N

0815 HRS MDT

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION WIND DEGREES (T.M.)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
94000.0	13.0	-47.3		23.1	585.1	347.1	13.4	1.0000005
94500.0	14.0	-47.5		22.0	585.3	347.2	13.9	1.0000005
95000.0	14.3	-47.4		22.0	585.4	347.3	14.4	1.0000005
95500.0	14.0	-47.3		21.5	585.5	347.5	14.9	1.0000005
96000.0	13.6	-47.2		21.0	585.6	347.6	15.1	1.0000005
96500.0	13.3	-47.1		20.6	585.7	349.3	14.1	1.0000005
97000.0	13.0	-46.9		20.1	586.0	351.1	13.1	1.0000004
97500.0	12.7	-46.5		19.6	586.6	353.1	12.2	1.0000004
98000.0	12.5	-46.0		19.1	587.1	354.7	10.8	1.0000004
98500.0	12.2	-45.0		18.7	587.6	355.9	8.9	1.0000004
99000.0	11.9	-45.2		18.2	588.2	357.8	7.0	1.0000004
99500.0	11.6	-44.6		17.6	588.7	1.1	5.1	1.0000004
100000.0	11.4	-44.4		17.3	589.2	353.0	4.9	1.0000004
100500.0	11.1	-44.0		16.9	589.8	342.3	5.5	1.0000004
101000.0	10.9	-43.6		16.5	590.3	334.0	6.3	1.0000004
101500.0	10.6	-43.1		16.1	590.8	327.6	7.1	1.0000004
102000.0	10.4	-42.7		15.7	591.4	327.6	5.0	1.0000004
102500.0	10.2	-42.3		15.4	591.9	327.6	2.9	1.0000003
103000.0	9.9	-42.0		15.0	592.3	327.6	.8	1.0000003
103500.0	9.7	-41.9		14.7	592.5	159.1	.9	1.0000003
104000.0	9.5	-41.8		14.3	592.6	173.1	2.1	1.0000003
104500.0	9.3	-41.7		14.0	592.7	177.2	3.2	1.0000003
105000.0	9.1	-41.6		13.7	592.8	179.2	4.4	1.0000003
105500.0	8.9	-41.5		13.4	593.0			1.0000003
106000.0	8.7	-41.4		13.1	593.1			1.0000003
106500.0	8.5	-41.3		12.8	593.2			1.0000003
107000.0	8.3	-41.2		12.5	593.3			1.0000003
107500.0	8.1	-41.1		12.2	593.5			1.0000003
108000.0	8.0	-41.0		12.0	593.6			1.0000003

STATION ALTITUDE 120.57 FEET MSL
 7 OCT. 76
 ASCENSION NO. 374
 0815 HRS MDT
 MINUATORY LEVELS
 2810010574
 HULLMAN
 "WIN 51P COUNQUINATED
 571/59.24 FEET L
 304/13.21 FEET N

TABLE X

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT		DIRECTION DEGREES (IN)	SPEED KNOTS
850.0	5020.	8.0	.3	58.		9999.0	9999.00XA
800.0	6652.	4.5	-3.0	50.		9999.0	9999.00XA
750.0	8360.	1.0	-5.7	61.		9999.0	9999.00XA
700.0	10177.	-2.1	-8.6	71.		346.8	11.7
650.0	12099.	-4.8	-9.2	71.		318.6	19.4
600.0	14152.	-8.8	-16.4	54.		315.5	37.0
550.0	16370.	-8.2	-28.2	18.		305.4	48.5
500.0	18776.	-13.0	-31.7	19.		311.9	47.2
450.0	21387.	-17.6	-35.1	20.		338.4	70.4
400.0	24251.	-22.8	-39.0	21.		328.6	81.4
350.0	27406.	-30.9	-43.7	22.		323.8	90.9
300.0	30450.	-37.0				325.7	97.4
250.0	34997.	-48.1				324.1	98.4
200.0	39693.	-58.5				332.7	96.9
175.0	42476.	-58.4				339.3	52.2
150.0	45605.	-64.9				345.5	80.1
125.0	49215.	-67.7				343.5	83.1
100.0	53623.	-66.5				347.0	21.7
80.0	58181.	-61.4				322.5	19.3
70.0	60901.	-59.9				346.1	10.3
60.0	64077.	-57.2				333.1	1.0
50.0	67871.	-56.0				330.6	10.2
40.0	72489.	-57.3				103.2	2.9
30.0	78572.	-51.3				129.3	0.1
25.0	82470.	-50.1				334.5	1.7
20.0	87269.	-48.6				327.1	8.7
15.0	93491.	-47.6				347.1	13.2
10.0	102365.	-42.0				327.6	1.4

00 AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

AA WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 76 0840 HRS MDT
ASCENSION, IOWA 303

SIGNIFICANT LEVEL DATA
25100.00303
JALLEN

W51M SITE COORDINATES
440491.00 FEET E
44023.05 FEET N

TABLE XI

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR	DEW POINT WET GASES CORRECTION	
883.5 4051.0	10.2	-1.5	44.0
850.0 5039.6	6.5	-3.8	41.0
811.0 6357.5	3.2	-7.0	47.0
797.2 6815.1	4.0	-7.7	42.0
768.5 7778.8	1.2	-8.6	48.0
726.4 9273.6	-6.6	-8.5	55.0
700.0 10241.8	-3.0	-8.4	56.0
656.4 11905.2	-6.7	-8.8	39.0
644.2 12385.9	-8.2	-8.3	99.0
638.0 12633.5	-7.2	-8.6	90.0
629.0 12997.5	-7.5	-11.1	75.0
615.3 13560.3	-8.6	-13.1	70.0
605.4 13973.6	-8.8	-16.3	46.0
597.3 14316.3	-9.4	-16.6	47.0
591.2 14577.0	-9.4	-16.7	19.0
570.4 15490.0	-7.5	-17.1	19.0
556.2 16135.6	-6.9	-15.5	21.0
500.0 18842.9	-11.7	-29.1	22.0
465.0 20659.7	-14.9	-30.5	25.0
435.0 22281.1	-16.1	-32.4	23.0
400.0 24368.7	-22.0	-37.4	23.0
376.8 25803.7	-25.9	-40.4	24.0
351.6 27443.5	-28.8	-42.9	24.0
320.4 29508.9	-34.0	-47.4	24.0
300.0 31115.0	-37.4	-50.4	24.0
290.2 31367.2	-39.1		
283.4 32401.5	-39.8		
250.0 35173.5	-48.0		
212.0 38679.3	-57.4		
200.2 39256.4	-57.6		

SIGNIFICANT LEVEL DATA

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 70
ASCENSION NO. 303

USIN SITE COORDINATES
400491.00 FEET E
404023.05 FEET N

JALLEN

TABLE XI (CONT)

PRESSURE GEOMETRIC ALTITUDE MILLIARBS PSL FEET	TEMPERATURE		M.L.FUN. PERCENT
	AIR DEGREES	DEW POINT CEN, GRADE	
200.0	39089.2	-59.1	
191.1	40327.2	-60.1	
187.4	41231.4	-57.8	
172.8	42915.1	-58.3	
150.0	45303.1	-65.1	
138.4	47414.5	-66.5	
130.4	46612.7	-63.0	
122.0	49963.5	-63.2	
104.2	53128.9	-67.5	
100.0	53949.3	-66.0	
92.4	55527.6	-67.0	
87.7	56576.5	-63.5	
85.6	57026.8	-57.4	
74.3	59991.6	-62.6	
71.2	60866.4	-58.1	
70.0	61221.0	-59.1	
64.2	63010.3	-59.3	
56.5	64843.5	-55.5	
50.0	66237.7	-57.9	
42.2	71778.2	-56.9	
38.0	73986.2	-54.2	
35.6	75377.9	-51.4	
30.0	79058.4	-50.7	
20.0	87825.9	-49.1	
17.8	90358.0	-48.9	
13.4	96573.3	-45.9	
10.0	103074.2	-42.5	

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 70
ASCENSION IS. 303

UPPER AIR DATA
2810000000
JALLEN

WSM SITE COORDINATES
450491.00 FEET E
454023.05 FEET N

TABLE XII

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION SPEED KNOTS	INDEX OF REFRACTION
4051.0	803.5	10.2	44.0	1050.7	650.5	20.0	1.000207
4500.0	809.0	0.6	42.7	1072.2	654.0	25.2	1.000202
5000.0	853.1	0.9	41.3	1050.5	652.5	29.2	1.000256
5500.0	837.4	3.4	42.9	1045.3	650.8	32.0	1.000252
6000.0	821.9	4.1	45.3	1030.8	649.3	36.0	1.000248
6500.0	800.7	3.4	45.4	1014.3	648.5	45.0	1.000244
7000.0	791.7	3.5	43.2	995.4	648.5	53.3	1.000238
7500.0	770.3	2.0	46.3	982.0	646.7	62.0	1.000235
8000.0	762.4	.9	49.0	967.5	645.5	61.4	1.000232
8500.0	743.0	.3	51.4	951.5	644.8	52.2	1.000228
9000.0	734.0	-.3	53.7	935.5	644.1	34.8	1.000225
9500.0	720.1	-1.2	57.6	920.8	643.0	16.6	1.000222
10000.0	700.5	-2.4	63.3	907.5	641.0	3.1	1.000219
10500.0	693.0	-3.6	71.1	894.0	640.2	32.5	1.000217
11000.0	679.5	-4.7	81.0	880.4	638.9	344.1	1.000215
11500.0	666.8	-5.8	91.0	867.0	637.6	336.3	1.000212
12000.0	654.0	-7.0	99.0	854.2	636.2	331.7	1.000209
12500.0	641.3	-7.7	94.9	840.2	635.3	329.2	1.000205
13000.0	628.9	-7.5	75.0	825.5	635.5	327.1	1.000197
13500.0	610.8	-8.5	70.5	810.7	634.2	325.0	1.000193
14000.0	604.8	-8.8	46.1	790.4	633.0	323.5	1.000135
14500.0	593.0	-9.4	27.3	782.8	632.9	322.6	1.000179
15000.0	581.5	-8.5	19.0	765.2	633.9	321.4	1.000174
15500.0	570.2	-7.5	19.0	747.4	635.1	319.3	1.000170
16000.0	559.2	-7.0	20.6	731.6	635.7	318.1	1.000167
16500.0	543.3	-7.5	21.1	710.8	635.1	320.7	1.000164
17000.0	537.6	-8.4	21.3	707.1	634.0	323.3	1.000161
17500.0	527.1	-9.3	21.5	695.7	632.9	330.0	1.000158
18000.0	516.9	-10.2	21.7	687.5	631.9	336.4	1.000156
18500.0	500.8	-11.1	21.9	675.4	630.6	341.1	1.000153

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 76
ASCENSION NO. 303

UPPER AIR DATA
261000000
JALLEN

WSTM SITE COORDINATES
450491.00 FEET E
444023.00 FEET N

TABLE XII (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND METER	WIND DATA DIRECTION DEGREES (TD) SPEED KNOTS	INDEX OF REFRACTION
19000.0	496.9	-12.0	22.3	062.5	629.7	345.0	1.000151
19500.0	487.0	-12.9	23.1	051.6	628.7	346.1	1.000148
20000.0	477.4	-13.7	23.9	040.9	627.6	346.2	1.000146
20500.0	468.0	-14.6	24.7	030.3	626.5	343.3	1.000143
21000.0	458.7	-15.2	24.6	019.1	625.9	339.8	1.000141
21500.0	449.5	-15.5	24.0	007.6	625.4	335.6	1.000138
22000.0	440.6	-15.9	23.5	590.4	625.0	331.0	1.000135
22500.0	431.7	-16.7	23.0	580.3	624.0	328.9	1.000133
23000.0	423.0	-18.1	23.0	571.7	622.2	327.2	1.000131
23500.0	414.4	-19.5	23.0	569.2	620.5	327.0	1.000129
24000.0	406.1	-21.0	23.0	560.8	618.7	326.8	1.000126
24500.0	397.6	-22.4	23.1	552.5	617.0	327.2	1.000124
25000.0	389.6	-23.7	23.4	544.0	615.3	327.6	1.000122
25500.0	381.6	-25.1	23.8	535.8	613.7	327.7	1.000120
26000.0	373.7	-26.2	24.0	527.2	612.2	327.8	1.000118
26500.0	365.9	-27.1	24.0	515.0	611.1	327.7	1.000116
27000.0	358.2	-28.0	24.0	509.0	610.0	327.4	1.000114
27500.0	350.7	-28.9	24.0	500.3	608.9	327.0	1.000112
28000.0	343.3	-30.1	24.0	492.1	607.3	326.7	1.000110
28500.0	336.0	-31.3	24.0	484.0	605.8	326.5	1.000108
29000.0	328.9	-32.5	24.0	470.1	604.3	326.6	1.000107
29500.0	321.9	-33.7	24.0	460.3	602.8	327.0	1.000105
30000.0	315.0	-34.9	24.0	460.5	601.4	327.5	1.000103
30500.0	308.2	-36.0	24.0	452.7	599.9	328.4	1.000101
31000.0	301.5	-37.1	24.0	445.0	598.5	329.3	1.000100
31500.0	294.9	-38.3	11.7**	437.4	597.1	329.5	1.000098
32000.0	288.5	-39.3		429.7	595.8	329.7	1.000096
32500.0	282.1	-40.1		421.7	594.7	329.2	1.000094
33000.0	275.8	-41.6		414.9	592.9	328.5	1.000092
33500.0	269.7	-43.0		400.3	591.0	328.1	1.000091

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 76 0840 HRS MDT
ASCENSION NO. 303

UPPER AIR DATA
2010000300
JALLEN

WSM SITE COORDINATES
450491.60 FEET E
444023.05 FEET N

TABLE XII (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE				DIRECTION DEGREES(TM)	SPEED KNOTS	
34000.0	263.6	-44.5			401.7	589.1	327.0	105.7	1.000089
34500.0	257.7	-40.0			395.3	587.1	327.7	104.3	1.000088
35000.0	252.0	-47.5			389.0	585.2	327.7	103.0	1.000097
35500.0	246.2	-46.9			382.4	583.4	328.0	103.7	1.000085
36000.0	240.5	-50.2			373.8	581.7	328.5	103.5	1.000084
36500.0	234.9	-51.6			369.3	579.9	329.1	103.0	1.000082
37000.0	229.4	-52.9			362.9	578.2	329.6	101.1	1.000081
37500.0	224.1	-54.2			350.6	576.4	330.3	100.9	1.000079
38000.0	218.9	-55.6			350.5	574.0	330.6	102.7	1.000078
38500.0	213.8	-56.9			344.4	572.9	330.7	104.1	1.000077
39000.0	208.8	-57.5			337.2	572.1	330.6	105.3	1.000075
39500.0	203.8	-58.2			330.2	571.2	331.0	104.1	1.000074
40000.0	198.9	-59.2			323.9	569.8	331.9	101.0	1.000072
40500.0	194.2	-59.8			317.0	569.1	333.0	101.3	1.000071
41000.0	189.5	-59.1			303.4	569.9	334.5	106.7	1.000069
41500.0	185.0	-57.9			299.4	571.0	335.8	112.2	1.000067
42000.0	180.6	-56.0			292.4	571.4	336.8	110.8	1.000065
42500.0	176.3	-56.2			283.7	571.2	337.8	108.4	1.000064
43000.0	172.1	-56.5			279.3	570.6	338.9	106.1	1.000062
43500.0	167.9	-59.7			274.0	569.2	340.9	94.1	1.000061
44000.0	163.9	-60.9			268.9	567.6	344.7	74.2	1.000060
44500.0	159.9	-62.0			263.8	566.1	347.4	62.7	1.000059
45000.0	156.0	-63.2			253.9	564.5	349.0	54.4	1.000058
45500.0	152.2	-64.4			254.0	562.9	345.9	50.1	1.000057
46000.0	148.5	-65.3			243.9	561.7	341.0	46.6	1.000055
46500.0	144.9	-65.7			243.3	561.1	334.5	44.1	1.000054
47000.0	141.3	-66.1			237.8	560.5	329.6	42.0	1.000053
47500.0	137.8	-66.3			232.0	560.4	325.9	41.6	1.000052
48000.0	134.4	-64.8			224.8	562.3	324.7	41.1	1.000050
48500.0	131.1	-63.3			217.7	564.3	325.1	41.4	1.000048

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 76
ASCENSION NO. 303

UPPER AIR DATA
201000Z0303
JALLEN

ASTM SITE COORDINATES
4 50491.60 FEET E
4 4023.05 FEET N

TABLE XII (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE				DIRECTION DEGREES (TN)	SPEED KNOTS	
49000.0	127.9	-03.1			212.1	364.7	324.9	41.1	1.000047
49500.0	124.8	-03.1			207.0	364.6	324.2	40.2	1.000046
50000.0	121.8	-03.2			202.1	364.4	322.9	39.0	1.000045
50500.0	118.8	-03.9			197.8	363.5	320.1	38.7	1.000044
51000.0	115.9	-04.6			193.5	362.6	317.4	38.3	1.000043
51500.0	113.0	-05.3			189.4	361.7	317.3	39.1	1.000042
52000.0	110.2	-06.0			185.3	360.8	317.3	39.0	1.000041
52500.0	107.5	-06.6			181.4	359.8	320.0	40.1	1.000040
53000.0	104.9	-07.3			177.5	358.9	323.7	40.3	1.000040
53500.0	102.3	-06.8			172.7	359.6	327.2	40.3	1.000038
54000.0	99.7	-06.0			167.8	360.7	330.4	41.7	1.000037
54500.0	97.3	-06.3			163.9	360.2	333.5	42.7	1.000036
55000.0	94.9	-06.7			160.1	359.8	334.2	42.5	1.000036
55500.0	92.5	-07.0			156.3	359.4	334.7	42.2	1.000035
56000.0	90.3	-05.4			151.4	361.5	335.0	40.5	1.000034
56500.0	88.0	-03.8			146.5	363.7	334.7	36.3	1.000033
57000.0	85.9	-07.8			139.0	371.7	334.3	32.2	1.000031
57500.0	83.9	-06.2			135.9	371.1	334.1	27.7	1.000030
58000.0	81.8	-09.1			133.2	370.0	333.9	23.1	1.000030
58500.0	79.9	-09.0			130.5	368.8	333.7	19.3	1.000029
59000.0	78.0	-09.9			127.9	367.6	333.8	16.7	1.000028
59500.0	76.1	-01.7			125.4	366.4	333.9	14.0	1.000028
60000.0	74.3	-02.6			122.9	365.4	334.0	11.4	1.000027
60500.0	72.5	-00.0			119.5	368.8	334.1	8.0	1.000026
61000.0	70.7	-06.5			114.8	370.0	334.1	7.5	1.000026
61500.0	69.1	-09.1			112.4	369.9	334.0	6.5	1.000025
62000.0	67.4	-09.2			109.8	369.9	333.9	6.0	1.000024
62500.0	65.8	-09.2			107.2	369.8	333.9	6.3	1.000024
63000.0	64.2	-09.3			104.8	369.7	333.8	6.6	1.000023
63500.0	62.7	-08.3			101.7	371.1	333.8	6.7	1.000023

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 70
ASCENSION IS. 303

UPPER AIR DATA
2810000303
JALLEN

WSTM SITE COORDINATES
400491.60 FEET E
444023.05 FEET N

TABLE XII (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	61.2	-57.2		90.8	572.4	333.6	6.7	1.000022
64500.0	59.8	-56.2		93.0	573.6	333.1	6.7	1.000021
65000.0	58.4	-55.6		95.5	574.6	331.8	6.7	1.000021
65500.0	57.0	-55.0		91.4	574.1	330.4	6.5	1.000020
66000.0	55.6	-56.3		85.4	573.7	326.7	6.4	1.000020
66500.0	54.3	-55.7		87.4	573.2	322.8	6.2	1.000019
67000.0	53.0	-57.0		80.5	572.7	317.9	6.0	1.000019
67500.0	51.8	-57.4		80.6	572.3	310.4	5.5	1.000019
68000.0	50.6	-57.7		81.8	571.8	301.8	5.2	1.000018
68500.0	49.4	-57.8		79.9	571.7	290.6	4.7	1.000018
69000.0	48.2	-57.7		77.9	571.9	276.6	4.5	1.000017
69500.0	47.1	-57.5		70.0	572.0	260.6	4.3	1.000017
70000.0	46.0	-57.4		74.2	572.2	241.0	4.0	1.000017
70500.0	44.9	-57.3		72.4	572.4	222.0	4.3	1.000016
71000.0	43.8	-57.1		70.6	572.6	212.1	4.4	1.000016
71500.0	42.8	-57.0		60.9	572.8	211.7	3.7	1.000015
72000.0	41.8	-56.6		67.2	573.3	211.1	3.1	1.000015
72500.0	40.8	-56.0		60.4	574.1	198.7	2.9	1.000015
73000.0	39.8	-55.4		60.7	574.9	183.9	3.0	1.000014
73500.0	38.9	-54.8		62.0	575.7	169.3	3.9	1.000014
74000.0	38.0	-54.2		60.4	576.5	161.0	6.6	1.000013
74500.0	37.1	-53.2		50.7	577.8	157.6	9.6	1.000013
75000.0	36.2	-52.2		57.1	579.1	156.4	10.6	1.000013
75500.0	35.4	-51.4		50.8	580.2	155.9	11.9	1.000012
76000.0	34.6	-51.3		54.3	580.3	155.4	12.6	1.000012
76500.0	33.8	-51.2		50.0	580.4	154.5	12.4	1.000012
77000.0	33.0	-51.1		51.8	580.5	153.7	11.9	1.000012
77500.0	32.3	-51.0		50.6	580.7	152.6	11.3	1.000011
78000.0	31.5	-50.9		49.4	580.8	150.1	10.3	1.000011
78500.0	30.8	-50.8		40.2	580.9	147.4	9.3	1.000011

UPPER AIR DATA
281000000
JALLEN

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 76
ASCENSION NO. 003
0840 HRS MDT

STN SITE COORDINATES
4 0491.60 FEET E
4 4023.05 FEET N

TABLE XII (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
79000.0	30.1	-50.7		47.1	581.0	143.4	7.7	1.000010
79500.0	29.4	-50.6		46.0	581.2	135.1	5.4	1.000010
80000.0	28.7	-50.5		44.9	581.3	116.1	3.4	1.000010
80500.0	28.1	-50.4		43.9	581.4	76.6	2.2	1.000010
81000.0	27.4	-50.3		42.9	581.5	27.0	2.0	1.000010
81500.0	26.8	-50.3		41.9	581.6	1.0	3.9	1.000009
82000.0	26.2	-50.2		40.9	581.7	352.5	4.6	1.000009
82500.0	25.6	-50.1		40.0	581.9	347.9	4.4	1.000009
83000.0	25.0	-50.0		39.0	582.0	343.1	4.4	1.000009
83500.0	24.4	-49.9		38.1	582.1	340.8	3.9	1.000008
84000.0	23.9	-49.8		37.2	582.2	340.1	3.2	1.000008
84500.0	23.3	-49.7		36.4	582.3	339.0	2.5	1.000008
85000.0	22.8	-49.6		35.5	582.5	342.7	2.7	1.000008
85500.0	22.3	-49.5		34.7	582.6	348.6	2.5	1.000008
86000.0	21.8	-49.4		33.9	582.7	353.6	2.7	1.000008
86500.0	21.3	-49.3		33.1	582.8	355.0	3.7	1.000007
87000.0	20.8	-49.3		32.3	582.9	355.0	5.2	1.000007
87500.0	20.3	-49.2		31.6	583.1	355.6	6.7	1.000007
88000.0	19.8	-49.1		30.8	583.2	354.8	7.6	1.000007
88500.0	19.4	-49.0		30.1	583.2	354.4	8.2	1.000007
89000.0	18.9	-49.0		29.4	583.3	354.1	8.8	1.000007
89500.0	18.5	-49.0		28.8	583.5	353.6	9.3	1.000006
90000.0	18.1	-48.9		28.1	583.4	354.0	9.1	1.000006
90500.0	17.7	-48.8		27.5	583.5	354.3	8.7	1.000006
91000.0	17.3	-48.6		26.8	583.6	354.7	8.3	1.000006
91500.0	16.9	-48.3		26.2	584.1	355.1	6.0	1.000006
92000.0	16.5	-48.1		25.6	584.4	355.6	7.7	1.000006
92500.0	16.1	-47.9		25.0	584.7	356.3	7.4	1.000006
93000.0	15.8	-47.6		24.4	585.0	356.9	7.2	1.000005
93500.0	15.4	-47.4		23.8	585.4	358.3	6.8	1.000005

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 76
ASCENDING 110. 303
0840 HRS MDT

UPPER AIR DATA
281003030
JALLEN

WSEA SITE COORDINATES
450491.60 FEET E
44023.05 FEET N

TABLE XII (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TD)	WIND SPEED KNOTS	INDEX OF REFRACTION
94000.0	15.1	-47.1		20.2	505.7	5	6.5	1.000005
94500.0	14.7	-46.9		22.7	506.0	3.1	5.0	1.000005
95000.0	14.4	-46.7		22.1	506.3	6.1	5.0	1.000005
95500.0	14.1	-46.4		21.6	506.6	24.6	4.2	1.000005
96000.0	13.8	-46.2		21.1	506.9	56.4	3.7	1.000005
96500.0	13.4	-45.9		20.6	507.2	86.9	4.7	1.000005
97000.0	13.1	-45.7		20.1	507.6	105.4	5.7	1.000004
97500.0	12.9	-45.4		19.7	507.9	118.0	6.5	1.000004
98000.0	12.6	-45.2		19.2	508.2	127.3	7.7	1.000004
98500.0	12.3	-44.9		18.8	508.6	134.1	9.0	1.000004
99000.0	12.0	-44.6		18.3	508.9	140.6	9.0	1.000004
99500.0	11.7	-44.4		17.9	509.3	148.9	7.7	1.000004
100000.0	11.5	-44.1		17.5	509.6	162.2	6.0	1.000004
100500.0	11.2	-43.8		17.1	509.9	181.3	5.2	1.000004
101000.0	11.0	-43.6		16.7	500.3			1.000004
101500.0	10.7	-43.3		16.3	500.6			1.000004
102000.0	10.5	-43.1		15.9	500.9			1.000004
102500.0	10.3	-42.8		15.5	501.3			1.000003
103000.0	10.0	-42.5		15.2	501.6			1.000003

STATION ALTITUDE 4051.00 FEET MSL
7 OCT. 76
ASCENSION I.D. 303

ANALOGUE LEVELS
28100000303
JALLEN

RSIM SITE COORDINATES
400491.60 FEET E
404023.05 FEET N

TABLE XIII

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(T)	SPEED KNOTS	
600.0	5098.	6.5	-5.0	41.	29.8	29.8	
600.0	6719.	3.0	-7.0	43.	49.2	30.8	
700.0	6428.	.4	-8.0	41.	53.8	17.4	
700.0	10235.	-3.0	-8.4	46.	357.0	9.6	
600.0	12140.	-7.5	-7.0	49.	330.8	17.3	
600.0	14129.	-9.2	-10.0	47.	323.1	34.7	
500.0	16407.	-7.4	-25.9	21.	320.2	51.0	
500.0	18222.	-11.7	-29.1	22.	343.8	59.7	
400.0	21446.	-15.5	-31.4	24.	335.8	82.4	
400.0	24335.	-22.0	-37.4	23.	327.1	77.8	
300.0	27509.	-20.1	-43.1	24.	327.0	90.5	
300.0	31062.	-37.4	-50.4	24.	329.4	103.1	
200.0	35107.	-40.0			327.8	103.7	
200.0	39205.	-59.1			331.7	101.7	
175.0	42557.	-58.2			336.2	107.7	
100.0	45094.	-65.1			343.5	47.7	
125.0	49344.	-63.1			324.3	40.3	
100.0	53799.	-66.0			330.1	41.6	
80.0	58302.	-59.9			333.7	19.5	
70.0	61030.	-59.1			334.1	7.1	
60.0	64208.	-56.4			333.4	6.7	
50.0	68002.	-57.0			297.4	5.0	
40.0	72634.	-55.5			167.2	2.9	
30.0	78745.	-50.7			142.9	7.5	
25.0	82649.	-50.0			343.3	4.4	
20.0	87444.	-49.1			354.9	7.4	
15.0	93657.	-47.1			.9	6.2	
10.0	102553.	-42.5					